Claims

15

25

- Process for the preparation of unsubstituted or substituted 2-amino[1,2,4]triazolopyrimidines which comprises combining A) 2-Amino-pyrimidine or
 its derivatives with alkyloxycarbonyl isothiocyanate or aryloxycarbonyl
 isothiocyanate with B) hydroxyl ammonium salt and a base wherein the reaction
 is carried out in a polar aprotic organic solvent in the temperature range of from
 40 to 150 °C.
- 10 2. The process according to claim 1 wherein the pH value in step B) is increased over time and finally maintained in the range of from 5.5 to 7,5.
 - 3. The process as in claims 1 to 2, wherein the hydroxylammonium salt is hydroxylammonium sulfate.
 - 4. The process as in claims 1 to 3, wherein the polar aprotic solvent is selected from the group consiting of carboxylic acid esters.
- 5. The process as claimed in claims 1 to 4 wherein the 2-amino-pyrimidine or its derivatives is described by formula I

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

and the 2-amino-[1,2,4]triazolopyrimidine is described by formula IV

$$H_{2}N \xrightarrow{N-N} H_{3-p} [(E)_{n}R_{m}]_{p}$$
 (IV)

- 30 wherein the variables have the following meaning:
 - E = independently the same or different are O, S, N, P;
- R = independently the same or different are C₁₋₁₀-alkyl; C₆₋₂₀-aryl; C₇₋₂₀-arylalkyl; C₇₋₂₀-alkylaryl which each of those may be substituted with one or more of the following groups: F, Cl, Br, I, C₁₋₂₀-alkoxy, C₆₋₂₀-aryloxy, non substituted or preferably substituted amino; F, Cl, Br, I;

WO 2005/063753 PCT/EP2004/014596

20

- 6. Process as claimed in claims 1 to 5, wherein the process is conducted without isolation of intermediates.
- 7. Process for the preparation of N-([1,2,4]triazolo[1,5-a]pyrimidin-yl)aryl sulfonamides or N-([1,2,4]triazolo[1,5-a]pyrimidin-yl)heteroaryl sulfonamides which comprises preparing unsubstituted or substituted 2-amino-[1,2,4]triazolopyrimidines according to claim 1 to 6 and subsequently reacting the yielded unsubstituted or substituted 2-amino-[1,2,4]triazolopyrimidines with an arylsulfonylhalogenide Ar-SO2-Hal or an heteroarylsulfonylhalogenide Hetar-SO2-Hal.
 - Use of a process as claimed in claims 1 to 6 in the synthesis of N-([1,2,4]triazolo[1,5-a]pyrimidin-yl) structure containing agrochemicals or pharmaceuticals.